

# Educational Evaluation Research Consortium



Quarterly Report No. 1  
April 27, 2004





## QUARTERLY REPORT NO. 1

4.27.2004

This quarterly report is submitted by the Educational Evaluation Research Consortium (henceforth referred to as the EERC or the Consortium) under the direction of Gilbert A. Valverde, Ph.D. Principal Investigator and Project Director and the EERC coordination team: Julio Leonardo Valeirón (Secretaría de Educación & Instituto Tecnológico de Santo Domingo [INTEC]) – Coordinator in the Dominican Republic, Sarah Gonzalez de Lora (Pontificia Universidad Católica Madre y Maestra [PUCMM]) Coordinator for the PUCMM, Sandra González (INTEC) – Coordinator for INTEC. This document sets forth the activities conducted during the first quarter under United States Agency for International Development (USAID) Contract No. 517-C-00-04-00102-00.

This report details activities conducted in 6 categories. The categories correspond to the 6 major areas into which the scope of project activities fall, and that have been set forward in the Work Plan submitted in 2003.

### 1. Design and Evaluation Model

To uncover the relationships across project features of USAID sponsored schools, Global Food for Education Initiative (GFEI) projects, Falconbridge schools, and Ministry of Education (MOE) policy interventions, this project is developing an integrated model of educational opportunity and learning. To date, the following tasks in this area have been completed or are in progress:

1. The first phase of analysis of an inventory of the intended curriculum of mathematics based on the coding of 1367 textbook pages and 413 curriculum guide pages from 4<sup>th</sup> to 8<sup>th</sup> grade has been completed.
2. First analyses are under review of EERC mathematics curriculum experts and the databases that were created as part of this work are undergoing cleaning and preparation for second waves of analysis.
3. A team has been put together to compose a Reading Analytical Curriculum Framework, for the Reading aspect of the study. A full procedure has been specified, terms of reference have been completed, and a team of experts at INTEC and PUCMM has been put together to

- accomplish this task. This team has been working independently and meeting weekly in Sto. Domingo since the week of March 29<sup>th</sup>.
4. A classroom observation protocol has been put together and a set of procedures for observations have been specified, and is currently under Consortium review. One aspect of the observational work is related to the development and validation of the evaluation model.
  5. A first draft comprehensive literature review has been conducted in the area of educational opportunities, and has been used to prepare a first draft conceptual matrix to use in model development and in battery design.
  6. The conceptual matrix includes a specification of model development and validations procedures – and specifies how the conceptual model will be used in the creation of the measurement model to serve as the blueprint for the Educational Opportunities Battery.
  7. The observation protocol and procedures noted under 1.4 above, are key to the development and validation procedures.

## **2. Learning Test Battery**

The learning assessment uses vertically scaled tests that are aligned with the intended curriculum of the DR. The project is developing scales that summarize the achievement of students. The scales will then be used to directly compare the performance level of students across grade levels. To date, the following tasks in this area have been completed or are in progress:

1. The curriculum analysis work in mathematics and the development of the analytical curriculum framework in Reading mentioned under 1.1 to 1.3 above, are also necessary for development of test blueprints and scales.
2. Test blueprints are in development for mathematics, and undergoing full review at PUCMM, in preparation for further Consortium Review.
3. During a visit (March 18 to 24) of the Project Director to the PUCMM a complete draft of a learning scale for the test was put together for the area of fractions. This scale serves as a model for the development of other scales for blueprint, and will serve as both the basis for the specification of new items, and for the categorization of existing items that are being compiled from previous studies and item pools.
4. A general test design has been agreed upon, entailing three sections: a 'core' or 'nucleus' representing basic skills to assess across all grades, a grade-specific component, and a 'comparative' component in which items

- from key cross-national assessments –aligned with the intended curriculum in the DR- will be included for comparison with international peers.
5. Study samples have been drawn that are designed to support scaling through a multigrade sampling scheme that will allow the separation of cohort, grade and possibly age effects.
  6. Two test administration schemes have been designed as part of the sampling scheme. One design is a ‘true longitudinal’ design entailing test administrations in two adjacent grades at the beginning and end of each school year for ‘experimental schools’. The other model is ‘quasi-longitudinal’ entailing test administration in three adjacent grades at the end of each school year, for the national comparison samples of schools.
  7. Item banks are being constructed and the Consortium is preparing item pilots for spring 2004 (Mathematics) and fall 2004 (Reading and Mathematics).
  8. PUCMM and INTEC are identifying 2 schools of each of 3 types (public rural, public urban and private, for piloting purposes. Preparation of procedures, protocols and forms to secure the approval of the Institutional Review Board of the University at Albany is underway.

### **3. Educational Opportunities Survey Battery**

This focus of this study will be on the relationships between program interventions, educational opportunities, and learning. To date, the following tasks in this area have been completed or are in progress:

1. Items from previous studies that have potential application to the Consortium battery have been identified in National Science Foundation review documents. These are being categorized against the Conceptual Matrix and are currently being archive on the new Consortium web site.
2. All of the above are in preparation for extensive fieldwork in modeling and instrument development to be carried through the remainder of 2004 and the first quarter of 2005.
3. A text providing an introduction to methods of inductive and deductive modeling has been produced as part of this work, which will be available to audiences outside the EERC.
4. A pilot study of student notebooks is approaching completion, intended to provide insight on best ways to use these indicants of educational opportunities.

5. All activities under 1 above (Design and Evaluation Model) are prerequisites for the work undergone in this area

#### **4. Sampling and sample tracing/ monitoring**

All activities under this subheading represent the selection of samples pertinent to the longitudinal and quasi-experimental design. Activities also account for the likelihood of substantial attrition in the sample. To date, the following tasks in this area have been completed or are in progress:

1. National comparison samples representing 200 schools across three strata (public rural, public urban and fully autonomous private schools) have been drawn – including ‘substitute’ schools.
2. The Ministry of Education, through various departments, provided databases on primary schools, private schools, and results of the most recently administered National Tests for the sampling effort. During the Consortium’s Sampling and Scaling Meeting held in Sosúa (March 15 to 18) the Ministry also provided additional information regarding private schools, and geo-demographic designations of schools.
3. Procedures to verify the samples have been designed and are underway.
4. A set of sampling frame and sampling programs in SPSS (Statistical Package for the Social Sciences) were produced related to the above and a sampling memo explaining these programs and the resultant databases were produced.
5. A comprehensive list of private schools with autonomy (‘con facultad’) was produced as part of the sampling frame work, such a list was previously non-existent, and is now at the disposal of the Dominican educational system.
6. An issue concerning the geo-demographic designation of schools by the Ministry of education was identified. Inspection of the sampling frames resulting from Ministry data showed schools designated as ‘rural’, for example, that clearly no longer were such. The Consortium has requested that the Center for Urban and Regional Studies (Centro para Estudios Urbanos y Regionales –CEUR) at the PUCMM propose a method to clean the data base in this regard. Currently, the CEUR is putting together a proposal for consideration of the Consortium.

## **5. Dissemination**

Preparing a full dissemination plan will be an activity to which the project will turn its attention once primary sampling and instrument development is further underway. To date, the following tasks in this area have been completed or are in progress:

1. Although primarily for Consortium coordination at this point, the development of the Consortium website (mentioned below) is a first step in the dissemination strategy.
2. Meetings (face-to-face and videoconferences) have been held with primary stakeholders (Sponsored Schools Program, PIGAE, USDA, the Ministry of Education and personnel from prominent NGOs) to acquaint them with the Consortiums goals and activities.
3. A group of Dominican and non-Dominican scholars has been identified to be invited to serve on the Scientific Advisory Committee for the study.
4. A number of non-governmental actors in the Dominican Republic have approached the EERC as a result of dissemination activities these include Plan Internacional, The Falconbridge Foundation, and the Program to Eradicate the Worst forms of Child Labor (funded by the US Department of Labor and the International Labor Organization) with an interest in participating in the evaluation research.
5. Meeting with the above organizations were held between March 29 and April 1. Additionally, work was done at the PUCMM to develop a protocol for the calculation of costs for the purposes of providing such organizations with estimates. Costs per-student-per-year were calculated for both Experimental and Comparative administration schemes.
6. The University at Albany press office produced and disseminated a press release on occasion of the launching of the project, the news was carried in the Albany Times-Union newspaper (Feb. 18, 2004 :B2), the U Albany Website and the State of New York Government Web site.

## **6. Coordination of the Consortium**

The efforts of the EERC are coordinated through extensive joint fieldwork and through a study group website and electronic forum. To date, the following tasks in this area have been completed or are in progress:

1. The Consortium has developed a procedure for conducting weekly meetings on the Internet, using Microsoft messenger and has been using these to coordinate across sites and task areas.

2. An interim website on WebCT has been created and is in use to serve as document archive, internal dissemination tool, reference library, document sharing environment and asynchronous communications schools for prolonged discussions.
3. The Project Director has made two trips to the Dominican Republic – a two week (December 1 to 12, 2003) trip to launch the study, make initial contacts with the Ministry of Education, and to put together the work plan. A second trip: March 14 to April 1, 2004 included the convening of a 4 day sampling and scaling meeting (described above), and work at the PUCMM and INTEC sites.
4. A Consortium Website (web address: [www.ceie.albany.edu](http://www.ceie.albany.edu)) combining all of the functions of the WebCT cite, but less demanding of the computers used to access it, is in the final development stages. A first complete test site is up and running, and being used by the Consortium. Access for external audiences to a public access 'dissemination' area will be implemented in the short term, once all security protocols prove stable.
5. INTEC subaward with U Albany has been signed by all parties and the first disbursement has taken place.
6. PUCMM is evaluating U Albany responses to suggested changes in subaward contract.
7. The Consortium assisted its partner the Falconbridge Foundation by a comprehensive review of instruments intended for its own internal data collection efforts.
8. A number of new opportunities have recently arisen for the Consortium, each of which is being assessed separately, these include:
  - a. The interest of Plan Internacional, the Falconbridge Foundation, and the USDL and ILO Child Labor Project to join the study.
  - b. The Ministry of Education's development of Terms of Reference for a competitive bid to design and conduct the end-of-secondary National Tests.
  - c. The interest of the Laboratorio Latinoamericano de Evaluación de la Calidad de la Educación (LLECE – UNESCO) to enlist help from the Dominican Republic in the development of an up-coming follow-up study.
  - d. The interest of the Ministry of Education of Honduras in enlisting the help of the Consortium director in studying the impact of a new National Curriculum on student achievement in that country
9. An important circumstance with potential adverse effects on scheduling is the upcoming presidential election in the Dominican Republic. Schools are polling places, and will be turned over to the electoral authorities one-

week prior to Election Day. The full impact of the election on the schools –in terms of how much of the school year schools may be functioning – is impossible to gauge at this point. The Consortium is operating under assumptions based on observations of how the election has affected schools in the pass.

## **7. Closing thoughts**

These first months of the EERC's work have been devoted both to setting up research and development efforts for the key scientific components of the Study, and to resolving the first order administrative issues (contracts, subcontracts, research team member recruitment, etc. Developing a partnership structure to support these two lines of actions has been key. The original proposal underestimated the potential of web-based technologies (Microsoft Messenger, E-mail, WebCT, etc.) in aiding communication and coordination of the Consortium's activities. Today, we hold regular weekly meetings on the web, circulate documents and data through our website, and conduct a variety of synchronous and asynchronous discussions regarding scientific, technical and administrative aspects of the study. A considerable amount of decision-making takes place in this way as well. These techniques do not replace face-to-face interactions, but if anything, they make our face-to-face meetings that much more productive.

As the Consortium's work progresses, obstacles and opportunities have become clearer. Certainly, the dearth of good data on schools – for the production of sampling frames for example – was anticipated. However, the level of cooperation we have received from the Ministry, and our leveraging of important contacts with key technical personnel from the Ministry, has helped us overcome these. In fact, the data bases that we have created and are in the process of cleaning and verifying are themselves useful contributions to the Dominican educational system.

There have been delays in the development of the Reading Comprehension component of the Study. However, a breakthrough that occurred during the most recent (March) visit of the Project Director to PUCMM and INTEC is that we have developed, and begun to implement, a plan to move this component of the study forward. At present we are satisfied that this problem has been solved.

The disruptions that the Presidential elections will cause to the school year had not been anticipated in the original proposal. However, we have come up with a



plan for two item piloting periods that we hope will help us overcome this problem and remain on schedule.

Despite fairly modest dissemination efforts, it is clear that interest in the Study is mounting among key stakeholders in the Dominican educational system. The Consortium has been approached by Plan Internacional and the USDL / ILO Child Labor Project to explore the possibility of joining the study. The Ministry of Education of Honduras has also requested additional information concerning its design and objectives, as there are important questions regarding the alignment problems with their evaluation efforts that they believe the Consortium's work can shed light on. Similarly, the directors of the Instituto Nacional de Evaluación de la Educación (INEE) in Mexico, have also requested information on the curriculum analysis techniques being used in the Consortium's work.

## Appendix 1: Principle computer programs, databases and documents produced during first quarter

### *1. Programs, and databases (SPSS syntax programs and .sav files):*

Wolfe, R. (2004). Base de datos escuelas de basica.sav. Sosua, Educational Evaluation Research Consortium: SPSS .sav file containing full list of Dominican primary schools.

Wolfe, R. (2004). Estratificar.sps. Sosua, Educational Evaluation Research Consortium: Program that adds stratification variables to Consortium sampling frame.

Wolfe, R. (2004). facultad.sav. Sosua, Educational Evaluation Research Consortium: Full list of autonomous private schools.

Wolfe, R. (2004). Marco.sav. Sosua, Educational Evaluation Research Consortium: SPSS .sav file containing Consortium sampling frame.

Wolfe, R. (2004). Muestreo1.sav. Sosua, Educational Evaluation Research Consortium: File generated by Muestreo1.sps - produces stratum 1 sample.

Wolfe, R. (2004). Muestreo1.sps. Sosua, Educational Evaluation Research Consortium: Program that adds generates stratum 1 (public rural schools) sample and sampling substitutes.

Wolfe, R. (2004). Muestreo2.sav. Sosua, Educational Evaluation Research Consortium: File generated by Muestreo2.sps - produces stratum 2 sample.

Wolfe, R. (2004). Muestreo2.sps. Sosua, Educational Evaluation Research Consortium: Program that adds generates stratum 2 (public urban schools) sample and sampling substitutes.

Wolfe, R. (2004). Muestreo3.sav. Sosua, Educational Evaluation Research Consortium: File generated by Muestreo3.sps - produces stratum 3 sample.

Wolfe, R. (2004). Muestreo3.sps. Sosua, Educational Evaluation Research Consortium: Program that adds generates stratum 3 (autonomous private schools) sample and sampling substitutes.

Wolfe, R. (2004). Muestreox.sps. Sosua, Educational Evaluation Research Consortium: Program that adds sampling constants to Consortium sampling frame.

Wolfe, R. (2004). Unicodigo.sps. Sosua, Educational Evaluation Research Consortium: Program that prepares Consortium sampling frame.

## *2. Discussion papers, protocols, research briefs*

EERC. 2004. *Definición De La Población Para La Muestra De Comparación Nacional Y Apuntes Acerca Del Procedimiento De Muestreo*, EERC / CEIE Research Brief. Report No.: MU-002\_03-04. Sosua, Rep. Dominicana: Educational Evaluation Research Consortium / Consorcio de Evaluación e Investigación Educativa.

— — —. 2004. *Introducción al Consorcio de Evaluación e Investigación Educativa*, EERC / CEIE Report. Report No.: DS-001\_03-21-04. Santiago de los Caballeros: Educational Evaluation Research Consortium / Consorcio de Evaluación e Investigación Educativa.

González, Sarah. 2004. *Traducción al castellano del MCA matemáticas expandido de TIMSS*, EERC / CEIE Research Brief. Report No.: MC-001\_03-04. Santiago de los Caballeros: Educational Evaluation Research Consortium / Consorcio de Evaluación e Investigación Educativa.

González, Sarah, and Gilbert A. Valverde. 2004. *Escala de Fracciones: prueba de matemáticas*, EERC / CEIE Research Brief. Report No.: MU-002\_03-04. Santiago de los Caballeros: Educational Evaluation Research Consortium / Consorcio de Evaluación e Investigación Educativa.

— — —. 2004. *Protocolo para crear presupuestos para nuevos ingresos al Estudio*, EERC / CEIE Discussion Paper. Report No.: GI-001\_03-04. Santiago de los Caballeros: Educational Evaluation Research Consortium / Consorcio de Evaluación e Investigación Educativa.

Valverde, Gilbert A. 2003. *Monitoring and Evaluation of Educational Opportunities in USAID Sponsored Projects in the Dominican Republic: Work Plan No. 1*, EERC / CEIE Research Brief. Report No.: GE-001\_11-03. Albany, NY: Educational

- Evaluation Research Consortium / Consorcio de Evaluación e Investigación Educativa.
- — —. 2004. *Apuntes para una discusión sobre la revisión del 'framework' de lenguaje, EERC / CEIE Discussion Paper*. Report No.: MC-001\_01-23-04. Albany, NY: Educational Evaluation Research Consortium / Consorcio de Evaluación e Investigación Educativa.
  - — —. 2004. *Elementos Para Un Marco Curricular Analítico (MCA) Para Comprensión Lectora Para el CEIE, EERC / CEIE Discussion Paper*. Report No.: MC-002\_03-26-04. Santiago de los Caballeros: Educational Evaluation Research Consortium / Consorcio de Evaluación e Investigación Educativa.
  - — —. 2004. *La Observación De Aulas En CEIE / Fase 1: Desarrollo De Modelo De Evaluación Y Exploración Inicial, EERC / CEIE Discussion Paper*. Report No.: ME-001\_02-20-04. Albany, NY: Educational Evaluation Research Consortium / Consorcio de Evaluación e Investigación Educativa.
  - — —. 2004. *Matriz Conceptual, EERC / CEIE Discussion Paper*. Report No.: MO-001\_01-23-04. Albany, NY: Educational Evaluation Research Consortium / Consorcio de Evaluación e Investigación Educativa.
- Valverde, Gilbert A., and Sandra González. 2004. *Términos de Referencia para equipo de MCA de Lectura, EERC / CEIE Discussion Paper*. Report No.: GI-002\_03-04. Santo Domingo: Educational Evaluation Research Consortium / Consorcio de Evaluación e Investigación Educativa.
- Valverde, Gilbert A., Migdalia Martínez, Luis Domínguez, and Sandra González. 2004. *Procedimientos Para Terminar Marco Curricular Analítico De Comprensión Lectora: Reunion INTEC Marzo 29 2004, EERC / CEIE Discussion Paper*. Report No.: MC-003\_03-29-04. Santo Domingo: Educational Evaluation Research Consortium / Consorcio de Evaluación e Investigación Educativa.
- Wolfe, Richard, and Gilbert A. Valverde. 2004. *Description of Sampling Programs and Databases, EERC / CEIE Research Brief*. Report No.: MU-001\_03-04. Sosua, Rep. Dominicana: Educational Evaluation Research Consortium / Consorcio de Evaluación e Investigación Educativa.